

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/018082

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J35/00 B01J23/89 B01J23/656 B01J23/60 B01J37/02
B01D53/94

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13, 5 February 2001 (2001-02-05) & JP 2000 296339 A (TOYOTA MOTOR CORP), 24 October 2000 (2000-10-24) abstract	1-14
X	----- WO 95/32790 A1 (ALLIEDSIGNAL ENVIRONMENTAL CATALYSTS) 7 December 1995 (1995-12-07) the whole document	1-14
X	----- EP 1 043 065 A (TOYOTA JIDOSHA KABUSHIKI KAISHA) 11 October 2000 (2000-10-11) the whole document ----- -/--	1,2,4,5, 7,8, 10-12,14

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

1 February 2005

Date of mailing of the international search report

08/02/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 516 741 A (GASCOYNE ET AL) 14 May 1996 (1996-05-14) examples 7,8,12-17 -----	1-5,8, 10-12,14
P,X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) & JP 2004 082000 A (TOYOTA MOTOR CORP), 18 March 2004 (2004-03-18) abstract -----	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/JP2004/018082

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2000296339	A	24-10-2000	NONE	
WO 9532790	A1	07-12-1995	DE 69517687 D1 DE 69517687 T2 EP 0762926 A1 JP 10501172 T US 5977012 A	03-08-2000 28-12-2000 19-03-1997 03-02-1998 02-11-1999
EP 1043065	A	11-10-2000	DE 69826030 D1 EP 1043065 A1 US 6440378 B1 WO 9932223 A1	07-10-2004 11-10-2000 27-08-2002 01-07-1999
US 5516741	A	14-05-1996	AT 109025 T DE 69103080 D1 DE 69103080 T2 EP 0457480 A1	15-08-1994 01-09-1994 01-12-1994 21-11-1991
JP 2004082000	A	18-03-2004	NONE	

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